BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational,	)	
Technical, and Spectrum	)	
Requirements for Meeting	)	WT Docket No. 96-86
Federal, State and Local Public	)	
Safety Agency Communication	)	
Requirements Through the Year 2010	)	

To: The Commission

COMMENTS OF THE AMERICAN PETROLEUM INSTITUTE

THE AMERICAN PETROLEUM INSTITUTE

Wayne V. Black
John Reardon
Paula Deza
Keller and Heckman LLP
1001 G Street, N.W.
Suite 500 West
Washington, D.C. 20001
(202) 434-4130

Its Attorneys

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SUMMARY

API welcomes the Federal Communications Commission (FCC) efforts to improve spectrum availability and use by entities that protect the general public. With that objective in mind, API reminds the Commission of the vital public safety role played every day by the petroleum and natural gas industries. These industries are required by federal, state and local laws to ensure the safe production, refining, and distribution of their petroleum products. In order to accomplish this goal, the petroleum and natural gas industries have invested heavily in a private communications infrastructure which is highly reliable and often located in remote areas where commercial service is inadequate or simply not offered.

API urges the FCC to adopt spectrum safeguards for private entities that regularly guard public safety and the environment. Specifically, the FCC should create a "public service" category of private entities that promote public safety. These public service licensees would include the petroleum and natural gas industries, mutual aid organizations, pipelines, other utilities, and railroads. Public service licensees should be afforded access to spectrum reallocated for public safety purposes. Moreover, private service licensees should not be denied access to

existing spectrum allocations, including the 470-512 MHz band. API also believes that interoperability would be enhanced for both public safety and public services entities by requiring licensees of new spectrum to utilize interoperable equipment. Finally, API believes that public service entities should be excluded from the spectrum auction process in light of the federal, state, and local telecommunications requirements with which they must comply. Where necessary, user fees would be a preferable method to collect revenue from public safety and public service licensees.

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AMERICAN PETROLEUM INSTITUTE

The American Petroleum Institute ("API"), by its attorneys and pursuant to Section 1.415 of the Rules and Regulations of the Federal Communications Commission ("Commission" or "FCC"), hereby submits these Comments in response to the Notice of Proposed Rule Making ("Notice")[1/] adopted by the Commission in the above-styled proceeding.

I. PRELIMINARY STATEMENT

1. API is a national trade association representing approximately 350 companies involved in all phases of the petroleum and natural gas industries, including exploration,

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[1/] 61 Fed. Reg. 18538 (April 26, 1996).

production, refining, marketing, and transportation of petroleum, petroleum products and natural gas. Among its many activities, API acts on behalf of its members as spokesperson before federal and state regulatory agencies. The API Telecommunications Committee is one of the standing committees of the organization's Information Systems Committee. The Telecommunications Committee evaluates and develops responses to state and federal proposals affecting telecommunications facilities used in the petroleum and natural gas industries.

2. Reliable two-way land mobile radio is an essential tool in almost every phase of the petroleum and natural gas industries. Reliable communications must be maintained during exploration activities for the direction of personnel and equipment, control and synchronization of multiple geophysical acoustical signal sources for oil and gas exploration, as well as for telemetering geophysical data. Drilling operations, by their very nature, involve hazards that can be minimized with reliable two-way mobile radio communications. After oil and gas production is established, mobile radio continues to play a critical role in providing communications for the management of individual wells, as well as entire fields and pipeline gathering systems, where careful supervision must be maintained according to federal laws over the operation of valves,

pumps, compressors, separation equipment, and local gathering systems. The safe and efficient operation of the extensive pipeline gathering systems and long-distance, crude, petroleum products and natural gas pipelines would not be possible without reliable two-way mobile radio communications. These same types of reliable communications are absolutely necessary in petroleum refineries where the safety of personnel and adjacent populations, including the surrounding environment, demand clear channels of communication. Even in the marketing and distribution of these energy sources, mobile radio continues to play an important role in the transfer of natural gas at city gates, and the loading and delivery by rail, tank trucks and marine vessels of refined petroleum products to industrial, commercial and residential customers.

3. The petroleum and natural gas industries were pioneers in the use of two-way mobile radio for these industrial safety applications. In recent years, some two-way mobile radio communications have been served by other than the traditional private system. Even though use of private, internal systems may be supplemented with cellular and Specialized Mobile Radio ("SMR") systems, where those services are available and can meet some needs, there remains a very critical requirement for privately-owned and operated two-way mobile radio systems in these industries.

The energy industries also expect to be users of new Personal Communication Systems ("PCS") in areas where these services are offered and can be utilized for selected functions. Notwithstanding the advent of these additional communication options, the petroleum and natural gas industries will continue to be large users of private land mobile radio systems for several reasons. First, public switched systems frequently become incapacitated during emergency conditions because of peak subscriber demand. Private systems are essential in these circumstances to insure the ongoing safe execution of energy operations where hazardous conditions could develop without reliable communications. Moreover, private systems will continue to be needed for both operational and safety communications in areas where there are inadequate or no public telecommunications facilities.

4. API members operate conventional and trunked mobile radio systems in all of the Private Land Mobile Radio Service ("PLMRS") bands. For example, API members utilize Industrial/Land Transportation ("I/LT") and/or Business Category channels in the 800 MHz and 900 MHz bands. Existing licensees modify and seek authority, from time to time, to expand these systems. It is also expected that new applicants in the energy industries will seek additional spectrum in the future.

5. API's members also utilize spectrum in the Private Operational-Fixed Microwave Service ("POFS") to serve a variety of vital point-to-point and point-to-multipoint telecommunications requirements, including communications between remote oil and gas exploration and production sites, for supervisory control and data acquisition ("SCADA") systems, to communicate with refineries, and to extend circuits to remote pipeline pump and compressor stations. The petroleum and natural gas industries were among the pioneers in the development of private microwave, utilizing their systems to remotely monitor and operate pipeline networks that traverse our entire nation and serve nearly every population center.

6. Other important uses of spectrum by API members include a limited allocation, for oil spill containment and clean up operations. This allocation includes two low band, four VHF and a single pair of UHF channels. 47 C.F.R. § 2.106, n. NG 112. The Petroleum Radio Service oil spill response channels are licensed on a secondary basis to Petroleum Radio Service eligibles for day-to-day land mobile communications. In the event of an oil spill, the secondary users must immediately cease use of these channels if they are needed for containment and cleanup communications. Although this allocation has provided the core of emergency communications response packages for many years and has been

sufficient in some instances, it is woefully inadequate for a major incident.

7. The FCC observed in its Notice that a major obstacle in meeting public safety communication requirements is that agencies operate their own communications systems on separate channels, using technologies that are incompatible with the equipment used by other agencies. Oil and gas companies have experienced this frustrating reality during responses to emergency situations that involve both public and private services. The Commission wishes to facilitate through this proceeding the interoperability of public safety radio systems. It tentatively concluded that interoperability can be furthered by a reassessment of what agencies and services should be classified as "public safety." Accordingly, API urges the Commission to create a "public service" category which recognizes the important public safety role played by private entities such as the petroleum and natural gas industries. This "public service" category would entitle public service providers to the same benefits and protections as public safety providers, while recognizing their separate status as private, non-governmental entities.

II. COMMENTS

A. The Proposed Public Safety Definitions Are Too Narrow

8. The Commission proposed various definitions of public safety entities.[2/] These "public safety" definitions are too fragmented, and the "public service" definition set forth along with the public safety definitions fails to adequately reflect the need for more spectrum and for interoperable communications between public safety entities and private entities who are required by federal, state or local regulations or industry codes or standards, for safety consideration, to provide redundant or highly reliable communications to protect the general public. The Public Safety definition proposed by the FCC includes governmental agencies that are "prescribed by law, to protect and preserve life, property, and natural resources." Private entities are also required by law to operate a communications system in order to protect and preserve life, property, and natural resources. The public service definition should be clarified to reflect the fact that certain private entities are required by law to serve and protect the public.[3/]

[2/] Notice at ¶ 24.

[3/] Notice at ¶ 24.

9. Laws and regulations administered by the U.S. Department of Transportation, the U.S. Coast Guard, the Occupational Safety and Health Administration (OSHA) and the U.S. Department of the Interior require oil companies that operate drilling rigs, production facilities, pipelines, deep-water ports and marine transportation-related facilities to maintain communications systems. For example, OSHA Report 3033 specifically requires refineries, petrochemical plants, oil pipelines and other facilities to maintain complex, reliable primary and secondary communications systems.[4/] These operators must also provide an emergency control center in a safe location that will house the emergency communications equipment.

10. The Department of Transportation requires that operators of high pressure natural gas pipelines maintain highly reliable primary and secondary communications systems.[5/] The Department of Transportation also requires oil pipeline operators to maintain communications systems with the ability to: (1) monitor operational data; (2) receive notices from operator personnel, the public and public authorities of abnormal or emergency conditions and

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[4/] Process Safety Management Guidelines for Compliance, OSHA 3113, at 26 (1992).

[5/] 49 C.F.R. § 194.107(d)(1)(ii); 49 C.F.R. § 194, Appendix A; 49 C.F.R. § 195.401(a); 49 C.F.R. § 195.402(c); 49 C.F.R. § 195.408.

forward this information to the appropriate personnel or governmental agencies for corrective action; (3) conduct two-way vocal communications between a control center and the scene of abnormal operations and emergencies; and (4) provide communications with fire, police and other appropriate public officials during emergency conditions.[6/] Furthermore, the Department of Transportation requires that all oil pipeline operators draft and submit a response plan to address the possibility of an accidental discharge.[7/]

11. The U.S. Coast Guard places heavy communications requirements on oil companies as well. For instance, all applicants that own, construct or operate a deep-water port, such as an oil transfer facility, must describe the communications systems to be used in the construction and operation of a deep-water port.[8/] U.S. Coast Guard regulations also require marine transportation-related facilities that transfer oil or other bulk hazardous materials to and from vessels to submit a response plan that describes the primary and alternative means of communications that would be utilized during an accidental

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[6/] 49 C.F.R. §§ 195.408(a) and 195.408(b) (1996).

[7/] 49 C.F.R. § 194, Appendix A(e) (1996).

[8/] 33 C.F.R. §§ 148.109(g) and 148.109(v) (1996).

discharge.[9/] Communications system requirements are also placed on operators of waterfront facilities handling liquified hazardous gas to have continuous two-way voice communications between vessels and the transfer facilities.[10/] Oil-bearing vessels are required by U.S. Coast Guard regulations to notify the Coast Guard of their primary and secondary communications methods to be utilized in order to notify appropriate parties in the event of an oil spill.[11/]

12. The Minerals Management Service ("MMS") of the U.S. Department of Interior requires that operators of offshore facilities for oil exploration, drilling, production, storage, processing or transportation in federal or state waters file an Oil Spill Contingency Plan ("OSCP"). In the OSCP, operators must establish an oil spill response center and a reliable communications system for directing the coordinated overall response operations in the event of an oil spill.[12/]

[9/] 33 C.F.R. § 154.1035(e)(4) (1996).

[10/] 33 C.F.R. § 127.111 (1996).

[11/] 33 C.F.R. § 155.1035(b)(4) (1996) (married vessels); 33 C.F.R. § 155.1040 (1996) (unmarried tank barge).

[12/] 30 C.F.R. §§ 254.5 and 254.5(c)(7)(iii) (1996).

13. In its Notice, the Commission recognized the public safety responsibilities of the utility, pipeline, petroleum and railroad industries who by their "very nature . . . involve potential hazards where reliable radio communication is an essential tool in either avoiding the occurrence of such hazards or responding to emergency circumstances."[13/] API agrees with the Commission that reliable radio communications are "essential" in these industries. Not only are radio communications systems "essential" in these industries to preserve public safety, but the petroleum and natural gas industries are required by federal law to maintain reliable communications systems in order to maintain public safety.

14. API submits that industrial entities that are required by federal, state or local laws to operate highly reliable communications systems for public safety considerations should be granted the same considerations as traditional public safety agencies. Thus, for the purpose of spectrum allocations and interoperability considerations, these entities should be classified as "public service" licensees and should be treated on an equal basis vis-a-vis public safety agencies.

[13/] Notice at ¶ 25.

B. Communications Between Industrial Entities and Governmental Agencies Should Be Included Within the Definition of Interoperability

15. The Public Safety Wireless Advisory Committee ("PSWAC") concluded that public service providers require interoperable radio communications with public safety agencies.[14/] In addition, the FCC in its Notice defines interoperability as "an essential communications link within public safety and public service wireless communications systems. . . ." [15/] Certain private industrial entities, including petroleum and natural gas companies, provide a critical public safety role in cases of emergencies; and, accordingly, they must be able to coordinate with governmental agencies such as the fire department or emergency medical services. As discussed above, these private entities that safeguard the public's safety should be classified as "public service" licensees and should be eligible for any new public safety allocations to facilitate interoperability with public safety providers.

[14/] PSWAC Final Report at 2.1.17.

[15/] Notice at ¶ 26.

C. Interoperability Is Essential to Mutual Aid Organizations; and an Expanded Spectrum Allocation Is Required for Mutual Aid Organizations to Respond to Emergency Situations

16. In paragraph 29 of its Notice, the Commission noted that interoperability is essential in mutual aid incidents such as "major fires, plane crashes, chemical spills and other disasters." API agrees that such incidents require that governmental agencies and private entities be able to share communications. The Commission does not explicitly mention public service providers' need for interoperability, however, in the cases of mutual aid organizations.

17. Dozens of mutual aid organizations exist throughout the United States. Local industries that may have their own emergency response vehicles including fire fighting equipment and ambulances, staff and equipment belong to these organizations, and they are often administered by a governmental agency such as the fire department. For the most part, interoperability is achieved by the local agency giving the industrial entities radios to be utilized only in an emergency and that are operated on a local government's public safety channels. The frequencies available for shared use emergency response operations are not sufficient to offer highly reliable communications in

the case of a disaster, like an oil spill. Likewise, clean-up drills and other emergency response drills conducted by public service entities cannot be accommodated with the limited frequencies currently available for such purposes.

18. For example, the Baton Rouge Mutual Aid organization is administered by the Baton Rouge Fire Department. The mutual aid participants include large refineries and chemical plants located in the Baton Rouge corridor of the Mississippi River. Many of these industrial plants maintain their own local emergency response equipment. The local fire department holds the license for an 800 MHz trunked system and has provided industrial companies located along the river with radios to access the system. Of the 68 participants in this mutual aid program, approximately 30 maintain fire department radios on their premises. The fire department checks the radios every morning and, in cases of severe weather, may send a warning to mutual aid participants. Governmental agencies utilize the mutual aid channel to request emergency response equipment from industrial members. Thus, interoperability between public service and public safety entities is vital for the success of mutual aid organizations. More spectrum is needed, however, to permit mutual aid organizations to accomplish their mission.

D. Interoperability Is Necessary for Private Emergency Preparedness Operations

19. The Commission also discussed in the Notice the need for interoperability in cases of emergency preparedness operations of governmental agencies.[16] The Notice failed to recognize, however, that emergency preparedness operations are not limited to governmental agency activities. Oil spill clean-up cooperatives, largely funded by the petroleum industry, operate in almost every United States port.[17] Their purpose is to safeguard lives and the

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[16] Notice at ¶ 30.

[17] The Association of the Petroleum Industry Cooperatives Managers (APICOM) represents 28 of the largest oil spill clean-up cooperatives in operation, but loosely formed cooperatives exist in almost every port to handle oil spill clean-ups. APICOM Members are:

> Alaska Chadux Corporation in Anchorage; Alaska Clean Seas in the Prudhoe Bay area; Burrard Clean Operations in Vancouver, British Columbia; CISPRI-Cook Inlet Spill in Alaska; Clean Bay Incorporated in the San Francisco area; Clean Caribbean Cooperative in the South Florida area; Clean Casco Bay, Inc. in Portland, Maine; Clean Channel Association, Inc. in the Texas Gulf area; Clean Coastal Waters, Inc. in the Southern California area; Clean Gulf Associates in New Orleans; Clean Harbors Cooperative in New Jersey; Clean Islands Council in Hawaii; Clean Rivers Cooperative in Portland, Oregon; Clean Seas in California; Clean Sound Cooperative, Inc. in the Puget Sound area; COPIM St Laurent Ltee in Quebec; Corpus Christi Area Oil Spill in Texas; Delaware Bay & River Coop; Great Lakes Response Corp. in Ontario; Guam Response Services, Ltd. in Guam; Humboldt Bay Response Corp. in California; LOOP Inc. in New Orleans; M.I.R.G. in Gretna, Louisiana; M.S.R.C.

(continued...)

environment threatened by an oil spill within their area of operation.

20. Interoperability between such oil spill response cooperatives and governmental agencies is crucial in order to effectively respond to an emergency. These oil spill cooperatives routinely perform training exercises and drills that include personnel from the oil companies that fund their organizations. These training exercises and drills require communications between points in the ocean, lakes, rivers, and on land. Availability of frequencies for oil spill clean-up drills varies from region to region but are uniformly inadequate to simulate a communications clean-up situation. In the case of an actual oil spill clean-up response, the available frequencies are quickly overloaded, slowing the clean-up mission. An expanded and universal frequency allocation for oil spill containment and cleanup communications would facilitate the effectiveness of these cooperatives.

[17/] (...continued)
Gulf Region in Lake Charles, Louisiana, M.S.R.C. Northeast Region in Edison, New Jersey; M.S.R.C. Northwest Region in Everett, Washington; SEAPRO-S.E. Alaska Petroleum in Ketchikan, Alaska; and, SERVS-Alyeska Pipeline in Valdez.

There are numerous private contractors in operation that also assist in oil spill clean-up efforts. Their trade group is the Spill Contractors Association of America (SCOAA).

E. Public Service Operations Requiring Interoperability Should Migrate to a New Band

21. In its Notice, the Commission discusses three alternatives for achieving improved interoperability: (1) relocation of all public safety communications to a new band; (2) designation of universal mutual aid channels; and (3) installation of cross-band repeaters.[18/] In response to the first proposal, API believes that an expanded spectrum allocation is needed to further the public service requirements of private and governmental entities through interoperability. Migration to a new "mutual aid" band is preferred over relocation. Cross-band repeaters, while potentially useful in some instances, most likely will cause high channel utilization on one frequency "spill over" to linked frequencies.

F. Use of Universal Mutual Aid Channels and Cross-band Repeaters to Achieve Interoperability

22. Portions of the government spectrum earmarked for transfer to the private sector may be suitable to support operations such as those of mutual aid organizations and clean-up cooperatives. There is a need for a nationwide universal mutual aid allocation of at least 30 frequency

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[18/] Notice at ¶¶ 34-36.

pair with a subset for oil spill containment and clean-up communications. Universal Mutual Aid Channels would greatly facilitate the emergency response operations of mutual aid organizations.

G. Commercial Providers Are Not the Solution for Meeting Public Safety and Public Service Spectrum Requirements Because They Cannot Ensure Reliable Communications During an Emergency Situation

23. In its Notice, the Commission proposed use of commercial services to meet current spectrum needs.[19/] Recently, cellular congestion has impeded rescue workers from responding effectively to an emergency situation.[20/] The Washington Post addressed the cellular congestion problem in a recent article that highlighted one particular incident in Fairfax County, Virginia. As a result of a tanker accident on the Capital Beltway last year, the truck spilled 7,000 gallons of gasoline into Lake Accotink. A motorist on a cellular phone alerted the police to the accident and rescue workers were able to reach the scene of

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19/ The National Communications System addressed this issue in the Petition for Rule Making issued recently by the Commission for public comment and incorporated into this proceeding. Petition for Rule Making filed by the National Communications Systems, WT Docket No. 96-86, 1996.

20/ The National Communications System addressed this issue in the Petition for Rule Making issued recently by the Commission for public comment and incorporated into this proceeding. Petition for Rule Making filed by the National Communications Systems, WT Docket No. 96-86, 1996.

the accident more quickly than they would have otherwise. However, cellular 911 calls reporting the incident continued to flood Fairfax County's 911 center, and the congestion on the cellular lines resulted in the inability of rescue workers at the scene of the accident to contact their base stations for hours.[21/]

24. API explained in its response to the Wireless Telecommunications Bureau's invitation for contributions to the Land Mobile Radio Service White Paper that it does not agree with the Commission that commercial providers could adequately meet the public safety concerns of private entities and governmental agencies. For example, in many areas where private entities have needed communications for public service operations, there has been no commercial service available. This was the case of the containment and cleanup effort following the Exxon Valdez oil spill. Almost overnight, Exxon employed over 6,000 portable radios which provided communications to workers cleaning up the spill over a remote 50,000 square mile area.

25. In those areas where commercial service *is* available, it has often proven inadequate to meet public

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[21/] Lan Nguyen, "As Mobile Phone Use Grows, 'Cellular Samaritans' Clog 911," The Washington Post, July 8, 1996, B1 and B3.

service requirements because commercial providers (1) are not responsible for compliance with federal, state, and local safety laws and regulations; (2) are not liable for health, safety and environmental compromises caused by lack of adequate communications services; (3) may not provide reliable service when they are interconnected with the public switched telephone network because it can become overloaded under emergency conditions (situations when coordination and communications are most important); (4) frequently do not restore interrupted service to public service providers on a priority basis; and, (5) operate systems on a for-profit basis that balances **normal** demand and system costs. Likewise, commercial wireline service can become overloaded during an emergency, leaving no available means of commercial communications.

H. Additional Spectrum Reserved for Internal Use Is Needed for Private Entities to Fulfill Their Public Service Obligations

26. In order to respond to emergency situations and to prevent or limit the impact of incidents, pipeline operators and oil refineries require more spectrum dedicated to public service communications. As previously discussed, commercial providers cannot offer the level of reliability needed by pipelines and refineries to respond to and prevent emergencies. Currently, pipeline operators and oil refineries use shared frequencies to meet their public service obligations. These widely shared frequencies do not

allow for private internal communications that would permit a pipeline operator or an oil refinery to quickly and efficiently respond to, and perhaps avoid, an emergency situation. In some situations such as a large oil spill or refinery incident, private channels are essential.

27. API supports the Commission's proposal that spectrum currently assigned to the Federal Government be made available for wireless public safety operations. As noted above, however, public service providers should also be granted access to this spectrum.

28. API supports the Commission's proposal to reallocate the 335.4-399.9 MHz band, currently limited to military use, for public safety use. API urges the Commission and NTIA to explore all other spectrum reallocation options for public safety and public service providers.

I. API's Reaction to the PSWAC Final Report

29. PSWAC released a Draft Final Report on August 7, 1996. The Draft Final Report included a recommendation that the FCC reallocate for public safety use channels which may become available from private radio services as a result of the FCC's spectrum refarming effort, as well as spectrum from other sources.